



# **Industrial, Gaming, & Commercial Displays Products & Services Overview**

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# Who Is Crystal Displays And What Do We Do?



Crystal Display Systems Ltd. is a leading U.K. Designer, Value Added Reseller, and Distributor of Flat panel display solutions with global customers and partners.



Crystal Displays offers Industrial, Retail and Digital Signage products as well as related products and services.



Additional capabilities/services include:

- ✓ Design consultation
- ✓ Demo /Sample program
- ✓ Customised Display kits
- ✓ Complete after sales service
- ✓ Repair services
- ✓ Extended warranty program
- ✓ Optical bonding services
- ✓ Touch screen integration
- ✓ Hibrite solutions
- ✓ Widest range of transparent Display kits and showcases
- ✓ Full range of Retail Displays





# Our markets...

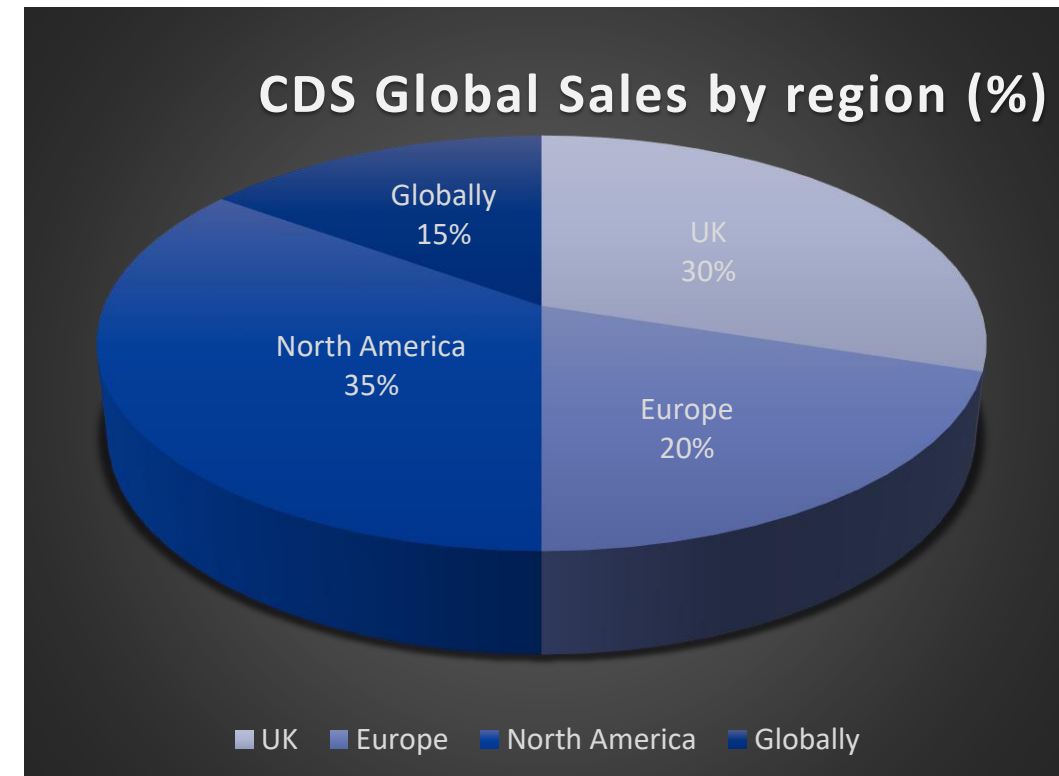
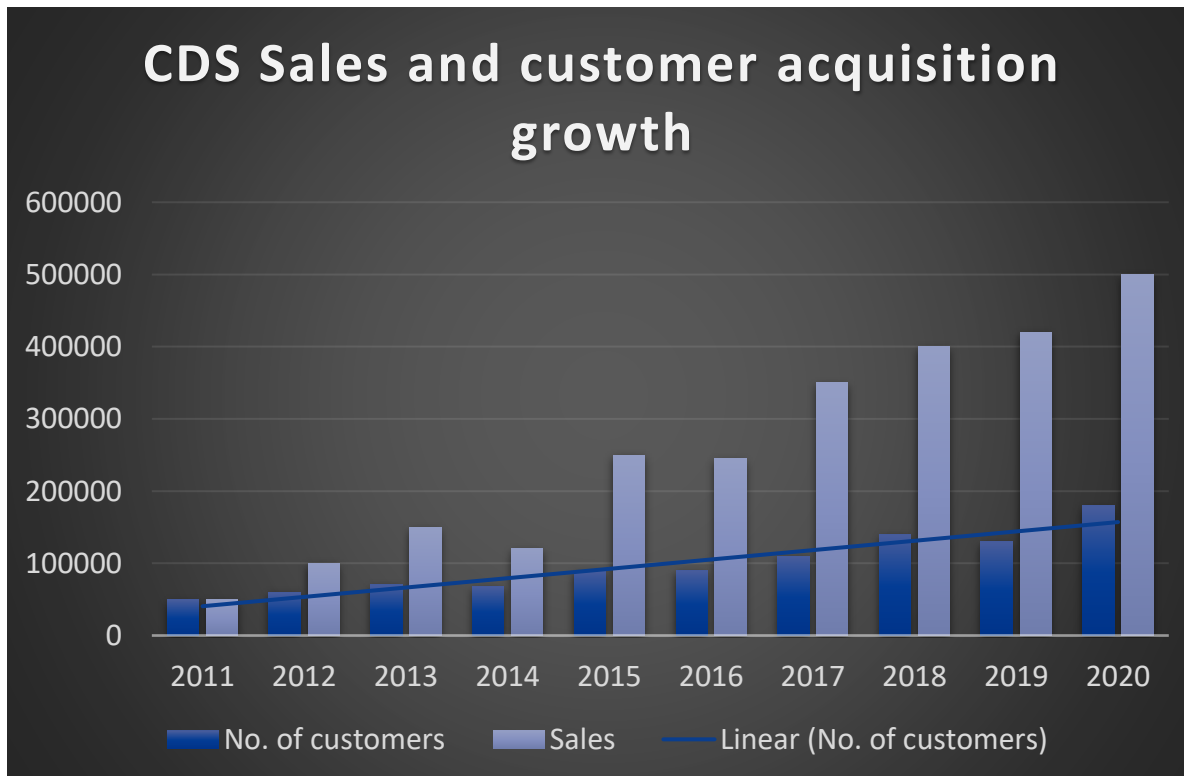


Crystal Display Systems Ltd



# We have a balanced global footprint...

- Privately owned rapidly growing Display specialist company with no debt founded in 2010!
- Expanding global coverage
- Headquarters near London, United Kingdom but presences in India, Switzerland, Malta and USA
- ISO 9001 and ISO14001 certified
- Full team of design engineers, full technical sales support with rapid response teams
- Cultivates its Industrial design capabilities
- Global Blue Chip customer base
- 5% of Revenue invested in R & D and design innovations



# TFT LCD Panels

- 01 Panel only
- 02 Kit solutions / bespoke interface
- 03 Sizes from 1" up to 98"
- 04 High bright technology
- 05 Ultra-high resolutions
- 06 Panoramic 'resized'
- 07 Wide viewing angles
- 08 Integrated touch screen
- 09 Optical bonding
- 10 Transparent TFT/OLED



# Full Range Of Interface Card Solutions

This excellent range of industrial interfaces offer high quality / high reliability solutions with all inputs required driving displays up to 4K (3840 x 2160). These are offered as stand-alone boards, kits solutions with cables / connectors etc.. or as fully tested kit solutions including the TFT panel and touchscreens.



Product Name	PCB Dimension	Inputs	Outputs	Max Resolution
PI Series 1080	100 x 150 x 16mm	RGB, DP, HDMI,	LVDS, Speaker	1920x
PO Series 1080	96 x 96 x 15mm	Y/Pb/Pr, PC Sound, RGB, DVI	LVDS, TTL	1920x
PS Series 1080	100 x 120 x 7.2mm	RGB, DVI, CVBS, External I2C	LVDS, Audio	1920x
C Series 1080	110 x 150 x 17mm	RGB, DVI, CVBS, SVHS, Y/Pb/Pr, 10W Audio	LVDS	1920x
O Series 1080	100 x 150 x 16 mm	RGB, DVI 2W Audio	LVDS	1920x
M Series 2160 and 1080	257 186 mm	HDMI 1.4a/30Hz DP/DVI-D/RGB	Vby1	3840x 1920x
Pro-4K	160 x 110 mm	VGA, DP1.2, HDMI 2.0 HDMI 1.4 @60hz	10bit 8-lane V-By-One and 4-lane eDP	4096 x 2160

# Touchscreen Technologies

- **PCAP** for stylish multi touch applications with DMC PCAP, Inotouch, and other specialist suppliers.
- **Analogue Resistive Touch Screens** are especially suitable for cost sensitive, compact applications. 4 and 5 wire available.
- **Capacitive Touch Screens** are resistant and suitable for outdoor and publicly accessible applications.
- **IR Infrared** for large sizes or applications with and without glass.
- **SAW (Surface Acoustic Wave) technologies** especially for hazardous environments or commercial and gaming applications
- **Projected Capacitive** for ruggedized and specific multi touch applications.
- **ShadowSense Touchscreens** utilize revolutionary new 2D and 3D tracking technology that will produce highly effective and accurate results at a cost well below that of systems currently on the market.
- **Displax Touch foils** for flexible large format (32"+) designs including through glass!



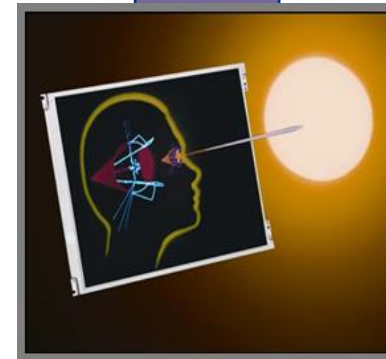


# Value Added Services - Optical Enhancements

This can be achieved through Anti-Reflection Enhancement Film, AR glass top layer or full optically bonded display. This currently available up to 75" but please ask for latest information – for more information please email: [info@crystal-display.com](mailto:info@crystal-display.com)

## Some of the Benefits of Optical Bonding

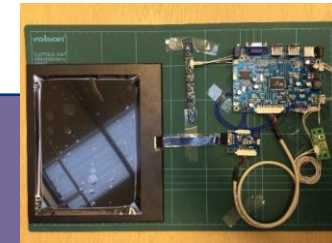
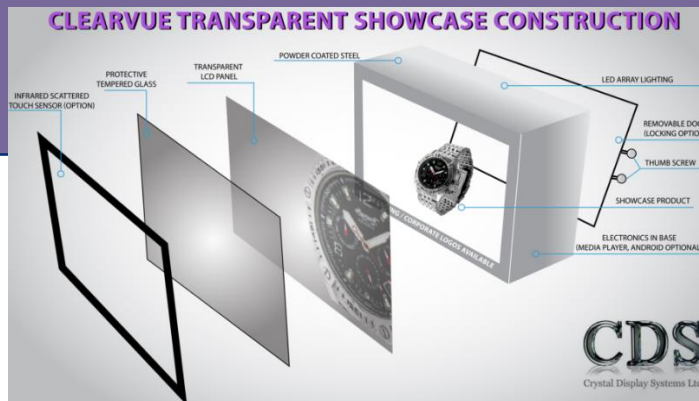
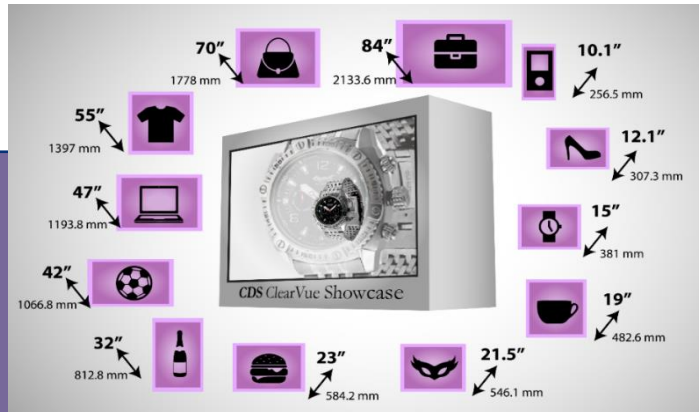
- ✓ By filling the air gap between the LCD and the substrate, refraction and reflection of light between the layers is Removed, greatly improving the legibility of the display in direct sunlight.
- ✓ The bonding also acts as a barrier to stop the build up of condensation between the LCD and substrate (which is another common problem with outdoor applications caused by frequent temperature changes)
- ✓ The bonding has a wide temperature range making it suitable for the toughest environmental applications acting as a UV shield to protect the LCD from sunlight induced damage.
- ✓ By using optical bonding in conjunction with an LED backlit panel you can greatly reduce your energy consumption in comparison to a comparable high bright product!
- ✓ The type of panel & substrate used is important and CDS can specify a solution dependent on the application. CDS can tailor the solution to meet your project needs, timescales, and budget.



# Transparent Display Kits

Transparent Display kits from 5" up to 84" for integrators and designers

## Transparent Display Showcases



For more information including our Transparent Displays brochure, pricing or FAQ document please email us on [info@crystal-display.com](mailto:info@crystal-display.com)

# Industrial, Commercial, and Retail Monitors

Crystal Displays offers a full range of standard and custom monitor products to meet your needs and requirements. Contact us about your project now.



**Chassis and Rear Mount**



**Sunlight Readable**



**Panel Mount**



**Waterproof IP65 / IP66**



**Industrial Super Slim  
SMART Monitors**



**Open Frame and Rack  
mount**



**Professional Large  
Format Monitors**

# Panel PCs (AIOs)

We specialize in Panel PCs and have a vast range of options now available. We can supply our solutions in many different formats to suit your application. Our sizes start as small as 6.5" diagonal, right up to 65". We test all our panel PC's for each application for optimum performance and visual quality.

When choosing a Panel PC, you need to consider several elements including:

- ✓ The Display (Diagonal Size, Resolution, Brightness, Backlight etc..)
- ✓ The Format ( Open Frame, Chassis Mount, Rack Mount, IP66 Sealed etc.) Touchscreen Required? Technology? (Resistive, Capacitive , IR, SAW etc.)
- ✓ The PC itself (Processing Power, Graphic Power, I/O, HDD etc..) Operating System Pre-installed? (Windows 7, Windows 7 embedded etc.)

*Examples below but more upon request*



**Zero Bezel Panel PCs  
and AIOs**



**Open Frame  
Panel PCs**



**Chassis Mount  
Panel PCs**



**IP67 Panel PCs**



# Custom Monitor builder

We have direct links with OEM factories allowing rapid development, commercially competitive and have scalable production capability. From designing a replacement for a current product through to a complete design CDS has the resource available.



# Examples of Crystal Display Projects

- Aviation / Military / Marine
- Medical
- Automotive / Transportation
- Process Control
- Retail / Digital Signage
- Gaming market
- EPOS
- Instrumentation
- Advertising
- Multi touch
- Specialist / Custom
- + Others ...



# Some of our Manufacturers and Suppliers



## Touchscreens



## Interface Solutions & Others



**“We are constantly adding products to our range and can supply other brands upon request so please contact our team.”**

## For More Information Please Contact Our Main Office and Technical Support Team



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GLOBAL ENQUIRIES

